16 16 F

ABSTRACT OF THE DISCLOSURE

A polysilicon film and the like are patterned to form n diffusion layers on a silicon substrate. Subsequently, an outer edge of an Al_2O_3 film is made retreat to be smaller than that of a gate electrode by performing isotropic etching of the Al₂O₃ film, using a solution of sulfuric acid with hydrogen peroxide. A silicon oxide film, a silicon nitride film, the polysilicon film and the like are hardly removed although the solution of sulfuric acid with hydrogen peroxide exhibits higher etching rate to the Al_2O_3 film, enabling almost exclusive etching of the Al_2O_3 film at a high selectivity ratio. Subsequently, another polysilicon film is formed so as to fill spaces formed after the retreat of the Al₂O₃ film under the silicon oxide film. Subsequently, a sidewall insulating film is formed by remaining portions of the later polysilicon film in the spaces by performing RIE, oxidation, or the like of the later polysilicon film.